



## Case Study

### AYURVEDIC APPROACH TO OSTEOARTHRITIS-A CASE REPORT

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#### ABSTRACT

*Sandhigatavata* is a disease in which *Vata* affects the Joints and cause pain, swelling and pain on Joint movements. It has many causes including *Dhathukshaya* and injury. The contemporary treatment for this condition includes analgesics and calcium supplements. But it proves to be of little effect. In Ayurvedic science there is a very detailed explanation regarding the medical management of *Sandhigatavata* which in turn proves to be very effective in its treatment. We hereby report a case of 60yr old female patient complaining of Pain, swelling and restricted movements of Knee, ankle and shoulder joint. She was being diagnosed as a case of osteoarthritis (*Sandhigata vata*) and was screened on the basis of Kellgrens radiological scale. Treatment was planned as *Snehana* both internally and externally as *Matra vasthi* and *Abhyanga* respectively along with *Brihatpanchamoola bala siddha ksheera* internally. Visual Analogue Scale for Pain, Swelling score, Womac Scale for assessing daily routine work ability were used to evaluate the efficacy of the treatment. There was a significant improvement in the Visual analogue scale of pain, Range of movements and daily routine work ability. The Quality of life of patient improved significantly by the proper application of internal and external *Snehana* in this patient. This finding has great relevance in present scenario as a remedy of a very common degenerative disease prevailing in our society.

**KEYWORDS:** Osteoarthritis, *Sandhigata vata*, *Snehana*, *Matra vasti*, *Snehana*, Ayurveda.

#### INTRODUCTION

Human body is composed of seven *Dhatus*. The fifth one is *Asthi dhatu* sequentially. Whole body resides on *Asthi dhatu* <sup>[1]</sup>. *Vata* is situated in *Asthi* as *Ashraya-ashrayi* (interrelated) *Bhava*<sup>[2]</sup>. Vitiation of *Vata dosha* in joints produces *Sandhigatavata*. It is an abnormal stage that occurs in the fourth or fifth decade of life *due to Dhathukshaya*<sup>[3]</sup> (progressive decaying in the body structures resulting in various degenerative disorders), which limits everyday activities such as walking, dressing, bathing etc. thus making patient disabled or handicapped. It being a *Vatavyadhi*, located in *Marmasthisandhi* and its occurrence in old age makes it *Kashtasadhya*. *Sandigata-vata* is considered to be closely equivalent to OA in modern medical science.

The objective of the treatment is to decrease pain while attempting to maintain or increase the range of movements and to minimize disabilities in daily living activities. The conventional pharmacological management of OA includes the administration of analgesics and nonsteroidal anti-inflammatory drugs (NSAIDs), but their use neither provides adequate pain relief nor deceleration in disease process. In addition, NSAIDs are associated with serious adverse effects.

*Snehana* which is the prime line of treatment of *Dhathukshaya janya Vata Vyadhi* was given internally and externally in this case and the results were very encouraging.

#### MATERIALS & METHODS

A 60 year old female patient of MRD No 61797 and Bed No 14 with the following presenting complaints was admitted in our hospital on 15.12.15 for 14 days and discharged on 28.12.15.

- Gradual onset of pain in bilateral knee joint, Left Ankle joint and Right shoulder joint.
- Swelling of Right shoulder joint.
- Restricted movements of Right shoulder joint and Left knee joint since 4 years.

Based on the above complaints and radiological report, patient was diagnosed as Osteoarthritis (*Sandhigata vata*). Before Ayurvedic treatment, patient had a history of taking NSAID's and other conservative treatments. On examination, the range of movements of Rt shoulder and Lt knee joint were reduced due to pain. Mild swelling was present in Rt Shoulder joint. X ray of Left knee joint was taken for Radiological assessment and blood investigations like RA, ASO, ESR were done as a part of screening to rule out other diseases.

#### Treatment Protocol

Treatment Protocol was planned as, *Abhyanga* with *Mrudu sweda* for 40 minutes and *Matra vasti* for a period of 14 days. *Matra vasti*<sup>[4]</sup> was being administered with *Guggulutiktaka ghrita*<sup>[5]</sup> and *Abhyanga* with *Ksheerabala taila* <sup>[6]</sup>. *Brihatpanchamula balasiddha ksheera* <sup>[7]</sup> was given as *Samanaushadhi* for 30days.

**Table 1: Schedule of Administration of treatment**

Days	Treatment	drug	dose	Duration
1-14days	Abhyanga and Mrudu sweda	Ksheerabala Taila	100ml	40min
1-14 days	Matra vasti	Guggulu tiktaka ghritha	72ml	After lunch
1-30days	Samanaushadhi	Brihat panchamula bala ksheera paka	96ml	11am

As per the schedule, treatment was administered. The ingredients of these formulations have been presented in the table 2.

**Table 2: Ingredients of Ksheerabala taila**

S.No	Drug	Botanical name
1	Bala mulam	Sida cordifolium
2	Tila taila	Sesamum indicum
3	Ksheeram	

**Table 3: Ingredients of Guggulutiktakam gritham**

S.No	Drug	Botanical name
1	Nimba	Azadiracta indica
2	Amrita	Tinospora cordifolia
3	Vrisha	Adhathoda vasica
4	Patola	Tricosanthos dioica
5	Nidigdika	Solanum surattense
6	Patha	Cyclea peltata
7	Vidanga	Embelia ribes
8	Suradaru	Cedrus deodara
9	Gajopakulya	Scindapsus officinalis
10	Nagara	Zingiber officinale
11	Nisa	Curcuma longa
12	Misi	Anethum sowa
13	Chavya	Piper chaba
14	Kushta	Saussuria lappa
15	Tejovati	Celastrus paniculatus
16	Maricha	Piper nigrum
17	Vatsaka	Holarrhena antidysentrica
18	Dipyaka	Apium graveolans
19	Agni	Plumbago zeylanica
20	Rohini	Picrorhiza kurroa
21	Arushkara	Semicarpus anacardium
22	Vaca	Acorus calamus
23	Kanamula	Piper longum
24	Manjishta	Rubia cordifolium
25	Ativisha	Aconitum heterophyllum
26	Visha	Frutillaria roylei
27	Yavani	Carum copticum
28	Sarja kshara	Shorea robusta
29	Yava kshara	Hordeum vulgare
30	Gritham	

The overall improvement like reduction in Pain, swelling and improvement in joint movements were graded based on the following scales explained in tables 3 and figure 1.

**Table 3: Assessment parameters adopted-Subjective****1. Pain(Vedana)**

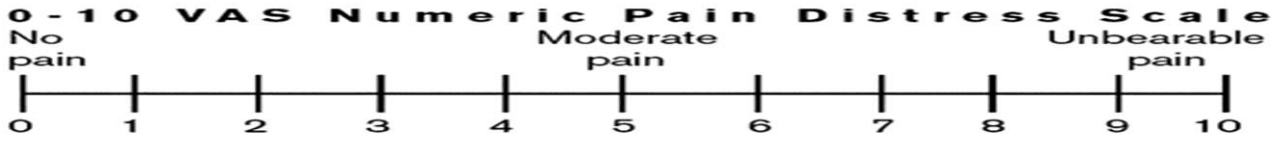
0	No Pain
1	Mild pain bearable in nature, comes occasionally
2	Moderate pain, but no difficulty in walking
3	Moderate pain, but slight difficulty in walking due to pain
4	Severe difficulty in walking, disturbs sleep, under analgesics

**2. Swelling(Sodha)**

0	Absent	No Swelling
1	Mild	Less than 10% circumference of affected joint
2	Moderate	More than 10% circumference of affected joint
3	Severe	More than 20% circumference of affected joint

**3. Akunjana Prasaraane Vedana**

0	No Pain
1	Pain without wincing of face
2	Pain with wincing of face
3	Prevent complete flexion
4	Does not allow passive movement



**Figure 1: Assessment parameters adopted- Objective Visual Analogue Scale**

**RESULTS**

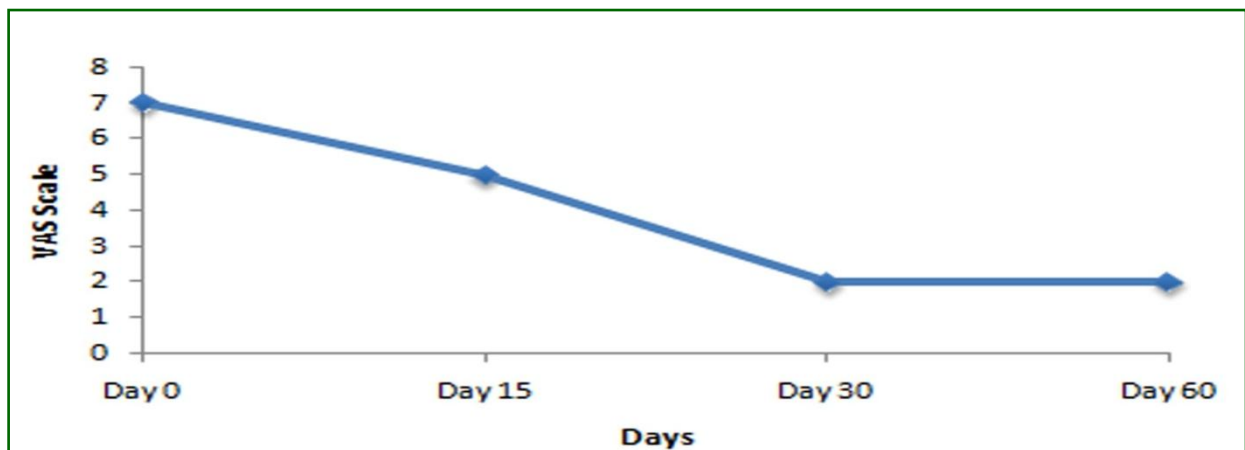
During the treatment of 14 days the patient experienced gradual relief of symptoms. On the day of admission(15.12.15) the treatment started with *Abhyanga* (Massage) and *Mrudu sweda* (sweating) along with *Matra vasti* (Oil enema). Internally *Brihatpanchamula balasiddha ksheerapaka* was also given. After 3days of treatment patient started feeling relief in Pain and swelling. The gradation of symptoms seen during the days of treatment are given in tables 4 and 5.

**Table 4: Assessment chart -Subjective parameters**

S. No.	Parameters	Grading B/T	Grading A/T	Grading After follow up
1	Pain	3	2	1
2	Swelling	1	1	0
3	Pain on joint movements	2	1	0

**Table 5: Assessment chart -Objective parameters**

S.No.	Scale	Grading BT	Grading AT	Grading during follow up
1.	VAS(Pain scale)	7	5	3
	Left Knee joint	5	2	2
	Right Knee joint	2	1	1
	Left Ankle joint	3	1	0
	Right shoulder joint	5	2	1
	Low back ache	4	4	0
2.	WOMAC	Sum = 26	Sum =15	Sum = 7
	Scale	Average=2.6	Average=1.5	Average=.7



**Figure 2: VAS Scale**

**DISCUSSION**

All the treatments selected for the patient was mainly aimed at *Vata* pacification and pain management. Since *Vata* is the sole cause for pain in OA, pain gets reduced simultaneously on *Vata* pacification. *Snehana* was

administered both internally and externally to reduce *Vata* and loosen the *Mala* (waste materials) in the body. It reduce the *Ruksha guna* of *Vata* and makes body *Mrudu* (soft). *Mrudu swedana* given helped to liquefy the *Malas*.

*Sandhigata vata* is a *Nirupasthambhitha Vata Vyadhi* and it is caused by *Dhathukshaya*. The repeated application of *Sneha* and *Swedana* will help in making the body flexible<sup>[8]</sup>. *Ksheerabala taila* will reduce *Vata* and delays the degeneration by the *Brmhana* effect of *Ksheera*. In *Sandhigata vata*, *Asthi* and *Majja* are the *Dhathus* involved since *Sandhi* and *Asthi* are the *Majjavaha srotomula*<sup>[9]</sup>. In diseases of *Asthi* and *Majja*, *Bahya* and *Abhyantara Snehana* is being advised.<sup>[10]</sup> According to Ayurvedic classical guidelines, *Tiktaksheera Vasti* is advisable for this<sup>[11]</sup>. *Guggulu tiktaka ghritha* is made of all *Tiktarasa dravya* which cures *Asthimajjagata vata*. *Sarpi* do the *Asthidhatu poshana* because of their *Snigdha Guna*<sup>[12]</sup>, *Tikta Rasa* gives strength to *Asthi* and it improves especially the *Khara Guna* of *Asthi* due to its *Soshana Guna*<sup>[13]</sup>. Being an *Akasa Mahabhutha Dravya*, *Tikta rasa* act as a medium for the *Basthi Dravya* of similar composition to reach their destination. The internal medicine *Brihatpanchamoola balasiddha ksheera* helps to reduce *Vata* and *Ksheera* (Milk) will act as *Balya* and *Rasayana*.<sup>[14]</sup>

### CONCLUSION

*Snehana* is considered to be the main line of treatment for *Sandhigata vata*. *Sandhigata vata* can be closely correlated to Osteoarthritis in modern terminology. Being a type of *Dhathukshaya vikara* (Degenerative disease) caused by *Vata kopa* (aggravated) *Snehana* (Oleation) both internally and externally along with *Dhathu poshana* helps to pacify the aggravated *Vata*. As the case showed significant improvement in Pain, Swelling and range of joint movements, it can be concluded that *Snehana* (Oleation) is the treatment of choice in cases of *Sandhigata vata* (OA). But a large scale clinical study has to be conducted for a longer duration to get more accurate conclusions.

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